

IN THE CLAIMS:

The present listing of claims replaces all prior versions, and listings, of claims in the instant application.

1. (Previously Presented) A composition for stabilizing or preserving biomolecules, comprising:

at least one non-reducing disaccharide; and
at least one protein or polypeptide of the LEA class.

2. (Currently Amended) A composition according to claim 1, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-glucopyranosyl-D-glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), as well as derivatives thereof.

3. (Previously Presented) A composition according to claim 1, wherein the non-reducing disaccharide is trehalose.

4. (Currently Amended) A composition according to claim 1, wherein the at least one protein or polypeptide of the LEA class has a motif comprising eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,

wherein

- (1) signifies K or T,
- (2) signifies A, G, K, M or T,
- (3) signifies R, D, A, E, Q or K,
- (4) signifies E, K or S,
- (5) signifies T, F, Y or A,
- (6) signifies K, R, T or A,
- (7) signifies D, E or Q,
- (8) signifies S, R, Y or K,
- (9) signifies A or T, and
- (10) signifies G, A or R.

5. (Currently Amended) A composition according to claim 1, further comprising wherein
said at least one protein or polypeptide of the LEA class is of LEA subclass 3 with and further has an amino acid sequence coded by a nucleotide sequence as selected from the group consisting of those deposited in GenBank under the accession number AF423069 or S39475.

6. (Currently Amended) A composition according to claim 1, wherein the said at least one protein or polypeptide of the LEA class is of LEA subclass 3 and further has a motif comprising 11 amino acids, wherein the motif is selected from the group consisting of:

(a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),

- (b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),
- (c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),
- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO. 5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and
- (h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

7. (Currently Amended) A composition according to claim 1, wherein the said non-reducing disaccharide is present at from 0.01 to 15 weight percent in relation to a ready-to-use solution and the said protein or polypeptide of the LEA class are components in respective quantities of from ~~is present at from 0.00001 to 1~~ 0.01 to 15 weight percent in relation to a ~~the~~ ready-to-use solution.

8. (Currently Amended) A process for stabilizing or preserving a biomolecules comprising the steps of:

providing a composition in accordance with claim 1; and
incubating a biomolecule in the composition.

9. (Currently Amended) A process for stabilizing or preserving a biomolecules immobilized on a surfaces comprising the steps of:

providing loaded-a surfaces comprising having a biomolecules immobilized on surfaces thereon; and
covering the loaded-surface with the composition as defined in claim 1.

10. (Currently Amended) A surface with an immobilized and stabilized or preserved biomolecules, obtained by the process as defined in claim 9.

11. (Previously Presented) A surface, covered with the composition as defined in claim 1.

12. (Currently Amended) An analytic and/or diagnostic device, comprising a A surface according to claim 10 ~~as a component of an analytic and/or diagnostic device.~~

13. (Previously Presented) An analytic and/or diagnostic device, comprising a surface as defined in claim 11.

14. (Original) A device according to claim 13 selected from the group consisting of biochips, sensor chips, microtiter plates, test tubes and culture dishes.

15. (Cancelled)

16. (Currently Amended) A process for stabilizing or preserving biomolecules comprising the steps of:

(a) providing immobilizing a biomolecules immobilized on a surfaces; and
(b) covering the surfaces with a composition comprising:

- i. at least one non-reducing disaccharide; and
- ii. at least one protein of polypeptide of the LEA class.

17. (Currently Amended) A process according to claim 16, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-glucopyranosyl-D-glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), as well as and derivatives thereof.

18. (Previously Presented) A process according to claim 16, wherein the non-reducing disaccharide is trehalose.

19. (Currently Amended) A process according to claim 16, wherein the at least one protein or polypeptide of the LEA class has a motif comprising eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,
wherein

- (1) signifies K or T,
- (2) signifies A, G, K, M or T,
- (3) signifies R, D, A, E, Q or K,
- (4) signifies E, K or S,
- (5) signifies T, F, Y or A,
- (6) signifies K, R, T or A,
- (7) signifies D, E or Q,
- (8) signifies S, R, Y or K,
- (9) signifies A or T, and
- (10) signifies G, A or R.

20. (Currently Amended) A process according to claim 16, further comprising wherein
said at least one protein or polypeptide of the LEA class is of LEA-subclass 3 with and
further has an amino acid sequence coded by a nucleotide sequence as selected from the
group consisting of those deposited in GenBank under the accession number AF423069 or
S39475.

21. (Currently Amended) A process according to claim 16, wherein the said at least one protein or polypeptide of the LEA subclass 3 class has a motif comprising 11 amino acids, wherein the motif is selected from the group consisting of:

- (a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),
- (b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),
- (c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),
- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO. 5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and
- (h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

22. (Currently Amended) A process according to claim 16, wherein ~~the said non-reducing disaccharide is present at from 0.01 to 15 weight percent in relation to a ready-to-use solution and the said protein or polypeptide of the LEA class is present at are components in respective quantities of from 0.00001 to 10.01 to 15 weight percent in relation to a-the ready-to-use solution.~~

23. (Cancelled)

24. (Currently Amended) A process for the production of a surface with immobilized and stabilized, or alternatively preserved, biomolecules comprising the steps of:

- (a) providing a surface with ~~a biomolecules to be immobilized and, stabilized, or alternatively preserved thereon; and~~
- (b) covering the biomolecules with a composition comprising:
 - i. at least one non-reducing disaccharide; and
 - ii. at least one protein or polypeptide of the LEA class.

25. (Currently Amended) A surface with immobilized and stabilized, or alternatively preserved, biomolecules obtained through the process as defined by claim 2416.

26. (Currently Amended) A component of an analytical and/or diagnostic device, wherein the component is a surface ~~with having a biomolecule immobilized and stabilized, or alternatively preserved, biomolecules thereon, covered with a composition, the composition comprising:~~
at least one non-reducing disaccharide; and
at least one protein or polypeptide of the LEA class.

27. (Currently Amended) A surface of a material selected from the group consisting of glass, quartz glass, quartz, silicon, polymers, nitrocellulose, nylon and micro fiber membranes, and paper, wherein the surface includes ~~an immobilized and stabilized, or alternatively preserved, biomolecules, thereon, covered with a composition, the composition comprising:~~
at least one non-reducing disaccharide; and
at least one protein or polypeptide of the LEA class.

28. (Currently Amended) A surface according to claim 27, wherein ~~the said non-reducing disaccharide is present at from 0.01 to 15 weight percent in relation to a ready-to-use solution and the said protein or polypeptide of the LEA class are components in respective quantities of is present at from 0.00001 to 10.01 to 15 weight percent in relation to a-the ready-to-use solution.~~

29. (Cancelled)

30. (Currently Amended) A surface according to claim 2827, wherein the non-reducing disaccharide is selected from the group consisting of trehalose (D-

glucopyranosyl-D-glucopyranoside), sucrose (β -D-fructofuranosyl- α -D-glucopyranoside), as well as derivatives thereof.

31. (Currently Amended) A surface according to claim 2927, wherein the non-reducing disaccharide is trehalose.

32. (Currently Amended) A surface according to claim 27, wherein the at least one protein or polypeptide of the LEA class has a motif comprising eleven amino acids, which is characterized by the following general formula (SEQ ID NO 1):

(1)-(2)-(3)-(4)-(5)-(6)-(7)-(8)-(9)-(10)-E,
wherein

- (1) signifies K or T,
- (2) signifies A, G, K, M or T,
- (3) signifies R, D, A, E, Q or K,
- (4) signifies E, K or S,
- (5) signifies T, F, Y or A,
- (6) signifies K, R, T or A,
- (7) signifies D, E or Q,
- (8) signifies S, R, Y or K,
- (9) signifies A or T, and
- (10) signifies G, A or R.

33. (Currently Amended) A surface according to claim 27, wherein ~~the composition comprises said~~ at least one protein or polypeptide of the LEA class is of LEA-subclass 3 ~~with and further has~~ an amino acid sequence coded by a nucleotide sequence as selected from the group consisting of those deposited in GenBank under the accession number AF423069 or S39475.

34. (Currently Amended) A surface according to claim 27, wherein ~~the said~~ at least one protein or polypeptide of the LEA class is of LEA subclass 3 ~~and further has~~ a motif comprising 11 amino acids, wherein the motif is selected from the group consisting of:

- (a) K-T-A-E-F-R-D-S-A-G-E (SEQ ID NO. 2),
- (b) K-G-Q-E-F-K-E-R-A-G-E (SEQ ID NO. 3),
- (c) K-A-E-E-T-K-Q-R-A-G-E (SEQ ID NO. 4),
- (d) K-M-D-E-T-K-Q-R-A-G-E (SEQ ID NO. 5),
- (e) K-A-R-K-T-K-D-S-A-A-E (SEQ ID NO. 6),
- (f) K-A-K-E-Y-K-D-Y-T-A-E (SEQ ID NO. 7),
- (g) K-A-R-E-T-T-E-K-A-R-E (SEQ ID NO. 8), and
- (h) T-K-D-S-A-A-E-K-A-R-E (SEQ ID NO. 9).

35. (Previously Presented) An analytical and/or diagnostic device, comprising a surface as defined in claim 27.

36. (Previously Presented) A device according to claim 35 selected from the group consisting of biochips, sensor chips, microtiter plates, test tubes and culture dishes.

37. (New) An analytic and/or diagnostic device, comprising a surface as defined in claim 10.